REMARKS

I. Introduction

Claims 1 and 4 have been amended to more particularly point out and distinctly claim the Applicants' invention. No new matter has been added.

For the reasons set forth below, Applicants respectfully submit that all pending claims are in condition for allowance.

II. Rejection of Claim 4 Under 35 U.S.C. §112, First Paragraph – Enablement

The Examiner has rejected claim 4 under 35 U.S.C. §112, first paragraph, as allegedly encompassing subject matter that is not enabled. The Examiner opines that while the specification teaches a fuel reforming apparatus wherein the activity of the reforming catalyst is recovered when a concentration of hydrogen gas in the reformed gas becomes *not less* than a predetermined concentration, it does not teach recovering the reforming catalyst when a concentration of hydrogen gas in the reformed gas becomes *higher* than a predetermined concentration.

Applicants have amended claim 4 to recite recovering the reforming catalyst when a concentration of hydrogen gas **is below** a predetermined concentration.

Accordingly, Applicant respectfully requests removal of this ground for rejection.

III. Rejection of Claims 1-6 under 35 U.S.C. §103(a)

The Examiner has rejected claims 1-2 and 4 under 35 U.S.C. §103(a) as allegedly being unpatentably obvious over U.S. Patent No. 4,855,267 to Cheng et al. (hereinafter 'Cheng') in view of U.S. Patent No. 3,839,194 to Sinfelt et al. (hereinafter 'Sinfelt'), U.S. Patent No. 3,926,584 to Adsetts (hereinafter 'Adsetts') and U.S. Patent No. 5,393,717 to Apelian et al. (hereinafter 'Apelian'). The Examiner further rejects claim 5 under 35 U.S.C. §103(a) as allegedly being unpatentably obvious over Cheng in view of Sinfelt, Adsetts, and Apelian in further view of U.S. Patent No. 5,302,470 to Okada et al. (hereinafter 'Okada'). The Examiner also rejects claim 6 under 35 U.S.C. §103(a) as allegedly being unpatentably obvious over Cheng in view of Sinfelt, Adsetts, and Apelian in further view of U.S. Patent No. 4,089,941 to Villemin.

The Examiner alleges that Cheng teaches the claimed fuel reforming apparatus because it discloses a fuel reforming apparatus wherein the flow of raw materials is stopped by a control unit when the reforming catalyst reaches a certain *predetermined condition* and a flow of an inert gas and heating of the catalyst are initiated. The Examiner concedes, that Cheng does not teach the precondition to be the temperature of the catalyst. To supplement this short coming, the Examiner cites Apelian, Adsetts and Sinfelt for the supposition that it is allegedly well known in the art that a maximum temperature can be determined at which catalyst deactivation begins. Therefore, the Examiner feels that it would be obvious to one of skill in the art to determine a maximum temperature to ascertain the optimum starting point for catalyst regeneration. Applicants respectfully disagree.

Cheng discloses a two-step reaction whereby a copper-containing catalyst is first oxidized by a gas having an oxygen content of at least 1% oxygen; and then reducing the copper-containing catalyst with a gas having a reducing gas content of at least 0.2%.

In order to expedite prosecution of the invention Applicants have amended claim 1 to recite a fuel reforming apparatus comprising a reforming unit including a reforming catalyst in which a reforming reaction of a raw material containing hydrogen proceeds by adding water to the raw material; a heater for heating the reforming unit; and a control unit for controlling the supply of said raw material to said reforming catalyst on the basis of the temperature of the reforming catalyst, and for controlling the supply of **water** to the reforming catalyst, wherein, when the reforming catalyst reaches a predetermined temperature, the control unit operates to stop the supply of the raw material to said reforming catalyst, and to allow the **water** to be supplied to the reforming catalyst while the reforming unit is being heated.

Applicants respectfully submit that the cited prior art does not teach the claimed invention because it does not teach, suggest or contemplate the supplying of **water** to a reforming catalyst, wherein, when the reforming catalyst reaches a predetermined temperature, a control unit operates to stop the supply of said raw material to said reforming catalyst, and to allow the **water** to be supplied to the reforming catalyst while the reforming unit is being heated.

For all of the foregoing reasons, it is respectfully submitted that the pending claims are patentable over the cited prior art of record.

III. Request For Notice Of Allowance

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication for which is respectfully solicited.

If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that Applicant has inadvertently overlooked the need for a petition for extension of time. The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-0417.

Respectfully submitted,

McDERMOTT, WILL & EMERY

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